Draft Project Report

KINGS BEACH COMMERCIAL CORE IMPROVEMENT PROJECT ON STATE ROUTE 28

IN PLACER COUNTY FROM STATE ROUTE 267 TO CHIPMUNK STREET

I have reviewed the right of way information contained in this Draft Project Report and the Right-of-Way Data Sheet attached hereto, and find the data to be complete, current, and accurate:

Lindy K. Lee *Date*
North Region Division Chief
Right of Way

APPROVAL RECOMMENDED:

Rich Williams *Date*
Project Manager

APPROVED*:

Jody Jones *Date*
District 3 Director
California Department of Transportation

** Approval is for only those features affecting State Highways*

This Project Report has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

Brian Stephenson, P.E. Date
Dokken Engineering

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DRAFT PROJECT REPORT

1. INTRODUCTION

This project proposes to improve pedestrian and bicycle circulation and safety on State Route 28 (SR-28) within Kings Beach in Placer County. The project limits along SR-28 are from the intersection of SR-28 and SR-267 moving east to the intersection of SR-28 and Chipmunk Street (see Attachment A – Vicinity/Location Maps). The County of Placer Department of Public Works (PCDPW) initiated the project. The estimated cost of $40 million (most expensive alternative, 2006 dollars) will come from a range of funding sources including state, federal, and local dollars. The majority of the funding will come from STIP sources.

Four alternatives are considered for the project.

Alternative 1 – No Build

Alternative 1 would not provide any improvements to the configuration of SR-28 or improvements for bicycles and pedestrians. The remaining three alternatives discussed in this report generally include variations of the following improvements:

- New curb and gutter and sidewalks on both sides from SR-267 to Chipmunk Street. Alternatives 2 through 4 designed to comply with ADA requirements.
- New Class II bicycle lanes on both sides from SR-267 to Chipmunk Street.
- Bus stop improvements.
- Two-way-left-turn lane (TWLTL) or turn pockets.
- Single lane roundabouts at Bear Street and Coon Street or improved signalized intersection.
- Modified signalized intersection at SR-267.Parallel parking along the highway would be allowed during the off season with Alt. 2, allowed all year with Alt. 3, and not allowed with Alt. 4.
- Improved State Park Entrance.

A brief description of the four alternatives is as follows:

Alternative 2: Two Lanes with On-Street Parking and 2 Roundabouts (See Attachment B – "Alternative 2")

Under Alternative 2, SR-28 would be modified from a four-lane cross section roadway to a three-lane cross section roadway. One 3.6 m (12 ft) traffic lane would be provided for the eastbound and westbound traffic, and two-way-left turn lane of the same width would also be included. Separate left turn lanes would be provided at the SR-267 (except in the westbound direction) and Deer Street intersections. Along the roadway, a 1.5 m (5 ft) bike lane and a 2.4 m (8 ft) parking lane would be created in each direction. Parallel parking along the highway would be allowed during the off season. Additionally, a 2.9 m (9.5 ft) sidewalk and planting area would be installed along both sides of SR-28. Two roundabouts would be created at the intersections of SR-28/Bear Street and SR-28/Coon Street. Enhanced and clearly marked pedestrian crossings at each intersection (SR-267, Deer Street, Bear Street, Coon Street, Fox Street, and Chipmunk Street) would be included as part of this alternative.

Alternative 3: Four Lanes with On-Street Parking (See Attachment C – "Alternative 3")

Under Alternative 3, SR-28 would remain a four-lane cross section roadway with two 3.3 m (11 ft) traffic lanes for the eastbound and westbound directions until just east of the Fox Street intersection. Between the Fox Street and Chipmunk Street intersections, SR-28 would become a three-lane roadway, with one traffic lane for each direction and a two-way-left-turn lane. Traffic signals would be installed/modified at SR-267, Bear Street and Coon Street. Left turn lanes would be provided at SR-267, Bear Street, Fox Street, Coon Street and Chipmunk Street. A 1.5 m (5 ft) bike lane and 2.4 m (8 ft) parking lane would be created in each direction. Along the roadway, a 1.7 m (5.6 ft) sidewalk would be installed on both sides of SR-28. Enhanced and clearly marked pedestrian crossings at each intersection (SR-267, Deer Street, Bear Street, Coon Street, Fox Street, and Chipmunk Street) would also be included as part of this alternative.

Alternative 4: Three Lanes with 2 Roundabouts and Without On-Street Parking (See Attachment D – "Alternative 4")

Alternative 4 is similar to Alternative 2 in that under this alternative, SR-28 would be modified from a four-lane cross section roadway to a three-lane cross section roadway. One 3.6 m (12 ft) traffic lane would be provided for the eastbound and westbound traffic, and two-way-left-turn lane of the same width would also be included. Separate left turn lanes would be provided at the SR-267 (except in the westbound direction) and Deer Street intersections. Along the roadway, a single 1.5 m (5 ft) bike lane would be created in each direction; however on-street parking would not be included in this alternative. Instead, a larger 5.3 m (17.4 ft) sidewalk and planting area would be installed along both sides of SR-28. Two roundabouts would be created at the intersections of SR-28/Bear Street and SR-28/ Coon Street. Enhanced and clearly marked pedestrian crossings at each intersection (SR-267, Deer Street, Bear Street, Coon Street, Fox Street, and Chipmunk Street) would also be included as part of this alternative.

2. RECOMMENDATION

It is recommended that the Draft Environmental Document (DED) for the project alternatives described above be approved for public circulation and that an opportunity for a public hearing be advertised.

3. BACKGROUND

Project History

The existing mainline of SR-28 within the project limits is a four-lane facility. Signalized intersections exist at SR-267 and Coon Street. The project is confined to an 80-foot right of way with existing buildings lining each side of the street. Improvements such as curb and gutter, sidewalks, and lighting are non-existent. Private driveways are not well defined, with asphalt parking areas blending into the roadway. Pedestrian and bicycle pathways are non-existent except for adjacent to the State Park parking lot. The lack of pedestrian and bicycle facilities along with the traffic congestion, leads to a situation of difficult pedestrian and bicycle movement through the commercial core.

There is a long history of large peak time traffic flows and local street delays in and around Kings Beach. Non standard roadway geometrics, closely spaced intersections, numerous driveways, unrestricted and undefined on-street parking, undefined pedestrian and bicycle paths, and high traffic volumes all contribute to the existing conditions and create difficulty in making roadway improvements.

The original improvement concepts for SR-28 through the project area included variations of Alternative 2 and Alternative 3. However, neither alternative was mutually supported by the governing

regulatory agencies. In 2004, TRPA and Caltrans suggested variations of Alternative 2 to address their concerns. "Alternative 4 – THREE LANES WITH 2 ROUNDABOUTS AND WITHOUT ON-STREET PARKING" eliminated on-street parking and "Alternative 5 – Caltrans" provided for higher traffic capacity in the westbound direction.

Alternatives 2, 4 and 5 considered a two-lane roundabout at the intersection with SR-267. The two lane roundabout was deemed unfeasible due to impacts to neighboring parcels and the required realignment of SR-28. The primary alternatives will improve the signal at the intersection with geometric improvements for turning movements to and from SR-267.

Alternative 5 considered a hybrid roundabout (2-lanes westbound, 1 lane-eastbound) at the SR-28/Bear Street and SR-28/Coon Street intersections. The hybrid roundabouts were deemed unfeasible due to impacts to neighboring parcels, so Alternative 5 was withdrawn.

Community Interaction

Numerous public open houses associated with SR-28 improvements through Kings Beach have taken place over the last three years. PCDPW sponsored the meetings which included participation by the Technical Advisory Committee (TAC), Caltrans, Tahoe Regional Planning Agency (TRPA), and the U.S. Forest Service. Advisory meetings during 2002 resulted in a local decision to pursue improvement alternatives for inclusion in an Environmental Impact Report/Environmental Impact Study (EIR/EIS). Concurrently, a Water Quality Planning Study was initiated for the Kings Beach area. The Water Quality Study would have significant impact to the drainage improvements crossing SR-28.

The EIR and Water Quality team meetings continued through 2003-2005 with periodic public meetings to inform the community of the progress on the project. The goal was to provide project stakeholders and the public an opportunity to review work being conducted and to provide input into the alternative definition and design processes.

Existing Facilities

The project area is located in the community of Kings Beach, along the north shore of Lake Tahoe near the California/Nevada state line, in Placer County, California. State Route 28 extends through the Kings Beach commercial area, which is generally defined as extending from the SR-267 intersection and the western boundary to the intersection of SR-28 and Chipmunk Street at the eastern boundary. Land use is predominately tourist/recreational and commercial. Setbacks from the right of way are very limited over a considerable portion of the project area.

Motorized traffic in the project area consists primarily of personal vehicles. Only a small percentage of truck traffic exists. Pedestrian traffic is heavy at times, especially during the tourist season, and bicycle traffic is increasing. Pedestrian paths include standard sections of sidewalk and informal paths of native decomposed granite. Bike paths and roadside parking spaces are not clearly defined. Where parking is present, pedestrians are forced to walk on the road shoulder.

The existing mainline of SR-28 is a four-lane roadway without access control. Originally constructed as a two-lane U.S. Forest Service road in the early 1930s, SR-28 cuts somewhat diagonally through the community. Parcels in blocks adjacent to the highway are located perpendicular to the road and slightly askew from parcels and blocks in the remainder of the community. The two lane roadway width allowed for roadside parking and an adequate setback between the roadway and adjacent buildings. During the 1960s, the roadway was expanded to four lanes through the commercial core area. The additional lanes

were provided at the expense of the setback between buildings and the road. Roadside parking also was affected.

Signalized intersections exist at SR-267 and Coon Street. State Route 267 is a three-way intersection with two-lanes in each direction on SR-28 plus left-turn pockets to SR-267 and a private driveway to a condominium complex. Coon Street is a four-way intersection with two-lanes in each direction on SR-28 and no left-turn pockets. An existing public boat ramp is located off Coon Street to the south.

SR-28

State Route 28 has several cross-streets within the project limits beginning with Secline Street located 150 m (492 ft) from SR-267. Within the project limits, SR-28 is posted in both directions with 30 mph speed limit signs.

SR-267

State Route 267 is the main connection from Kings Beach to Interstate 80 in Truckee. The roadway is a two lane facility with a left turn pocket at the SR-28 intersection.

Secline Street

Secline Street is an offset crossing of SR-28 and carries a minor volume of traffic. A pedestrian crosswalk was located between diagonal corners across SR-28, but has since been removed by Caltrans.

Deer Street

Deer Street is located 250 m (820 ft) from Secline Street. It is a T-intersection with two commercial driveways on the south side. A pedestrian crosswalk is located between the northeast corner and the two driveways.

Bear Street

Bear Street is located 215 m (705 ft) from Deer Street. It is a four-way intersection. However, the south side is the entrance to the public parking lot serving the North Tahoe Community Conference Center and Kings Beach State Recreation Area. It is a fee parking facility during the peak tourist season and is subject to stacking at the pay booth. A pedestrian crosswalk is located on the west side of the intersection.

Coon Street

Coon Street is located 250 m (820 ft) from Bear Street. It is signalized and includes crosswalks across both the east and west side of the intersection. Without left-turn pockets, traffic is typically backed up in the two center lanes. Coon Street towards the boat ramp is narrow at 8 m (26 ft) wide making access difficult for vehicles with boat trailers.

Fox Street

Fox Street is located 245 m (804 ft) from Coon Street. It is a T-intersection but with a commercial driveway on the south side. A pedestrian crosswalk exists across the east side of the intersection.

Chipmunk Street

Chipmunk Street is located 300 m (984 ft) from Fox Street. It is a T-intersection with a private driveway on the south side. Chipmunk Street enters at a skew angle of 45°. A pedestrian crosswalk is located across the west side of the intersection. Chipmunk Street is also within the transition zone from the four-lane section to the two-lane highway section.

Utilities

The following is a list of the existing utilities within the study area:

§ Pacific Gas & Electric Company (PG&E)	Electricity
§ Sierra Pacific Power Company	Electricity
§ Southwest Gas	Gas
§ AT&T	Telephone
§ North Tahoe Public Utility District	Sewer, Water
§ Tahoe Truckee Sierra Disposal	Solid Waste

Drainage

The existing drainage facilities within the project area have been reviewed, compared to as-built plans and field verified. Several drainage systems within the project area have been found to be deficient and will be improved with this project. The estimated cost for the project alternatives includes the cost of new drainage systems, upgrading or replacing culverts/pipes/inlets. These improvements are necessary to achieve water quality goals of the TRPA and Regional Water Quality Control Board 208 plans.

Placer County is in the process of approving the Kings Beach Watershed Improvement Project. This project outlines improvements to reach water quality goals and improve the overall water quality for the entire Griff Creek watershed. This separate project encompasses the area of the Kings Beach Commercial Core Improvement Project. All of the proposed alternatives will incorporate the findings of the watershed project that fall with in the footprint of that alternative.

Structures

None of the alternatives would require the construction of new structures, or the modification or removal of existing structures.

4. NEED AND PURPOSE

A. PROBLEMS, DEFICIENCIES, JUSTIFICATION

The purpose of this project is to improve pedestrian and bicyclist mobility, improve water quality, and improve the aesthetics of the commercial core through Kings Beach. Project alternatives will provide improvements where needed between the SR-28/SR-267 intersection and the SR-28/Chipmunk Street intersection to better serve the needs of pedestrian and bicyclist traffic.

This project is needed to improve pedestrian and bicyclist mobility and safety along SR-28 through the commercial core of Kings Beach. Bicycle facilities are not present along SR-28 in the Kings Beach commercial core. The project is also needed to improve pedestrian and bicycle mobility across SR-28, improve water quality, and improve the aesthetic character of the commercial core.

Safety Issues

Four of the project area intersections are above the State average for similar types of intersections. The 'Fatal + Injury' rate for the project location is two and a half times the State average for similar facilities. No left turn lanes at busy intersections, poor pedestrian pathways and lacking pedestrian refuge areas add to this high accident rate.

All alternatives include improvements to SR-28 by providing pedestrian and bicycle mobility from SR-267 to Chipmunk Street. All project alternatives will also improve to the intersections to increase pedestrian and bicycle mobility across SR-28. Safety will be improved by providing the pedestrian with clearly defined pathways to walk along SR-28, and marked crosswalks to cross SR-28. The improved intersections will provide for protected left turns for the motoring public and pedestrian refuge areas for pedestrians and bicyclists.

Screening Criteria

To meet the stated project purpose, and address the project need, the project alternatives shall be responsive to the following key project criteria:

- Improve pedestrian and bicycle mobility along and across the SR-28 Kings Beach Commercial Core (KBCC) area.
- Improve storm water runoff water quality.
- Improve the scenic and aesthetic character of the Kings Beach Commercial Core.
- Implement as many TRPA Environmental Improvement Program (EIP) and Kings Beach Capitol Improvement Projects (CIP) as feasible.

B. REGIONAL AND SYSTEM PLANNING

Identify Systems

SR-28 is a conventional four-lane highway with two through lanes in each direction without access control.

State Planning

The project area was included in a Caltrans Transportation Concept Report (TCR) completed July 2004. The report does not anticipate increasing capacity of SR-28 in the project area. The concept LOS for the project area is F in 2023 with the number of lanes remaining the same (4-lanes) or decreasing to 3-lanes. The TCR states the current (2003) LOS is E. The TCR also states that a reduction in the number of lanes may improve pedestrian safety.

Regional Planning

Placer County and the Tahoe Regional Planning Agency (TRPA) adopted the *Kings Beach Community Plan* in 1996. That plan presents a vision intended to guide the community enhancement activities. The plan also contains a description of activities needed for that vision to become a reality. The Purpose of the proposed project is to implement provisions of the *Community Plan* within the Kings Beach Commercial Core Area.

Local Planning

Planning activities in the Kings Beach area are directed through the *Kings Beach Community Plan*, which is an element of the North Tahoe Area General Plan. The North Tahoe General Plan was developed in

accordance with Chapter 14 of the TRPA Code of Ordinances and provisions of the Placer County, Countywide General Plan. The Land Use Element of the Community Plan provides the following land use planning statement:

> "This area should continue to serve the regional tourist and commercial needs of the north shore. The area should be redeveloped to concentrate use, restore stream environment zones, and increase shore zone access. The overall planning goal is to provide an attractive resort community".

C. TRAFFIC

Current and Forecast Traffic

A Traffic Report has been prepared to develop the forecast traffic volumes and operational analysis in the project area. The text of this Traffic Report is incorporated as Exhibit I of this Project Report. Current and forecast volumes for the years 2002, 2008 and 2028 are shown in Tables 7, 17, 24-25 of the Traffic Report and as Tables 1, 2, 3 and 4 in the Project Report. The Level of Service (LOS) summary for the years 2008 and 2028 are shown as Table 14 of the Traffic Report and as Table 5 in the Project Report.

TABLE 1: 30th-Highest Peak Hour Summer 2002 Intersection Turning Movement Volumes

	Southbound			Westbound			Northbound			Eastbound			
SR 28 @	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
267	323	1	264	3	675	422	1	0	3	202	834	1	2,729
Secline	39	2	17	22	1,055	36	24	1	26	42	1,106	11	2,381
Deer	3	0	24	25	1,054	22	0	0	5	33	1,106	14	2,286
Bear	10	0	91	44	973	47	13	0	73	56	986	59	2,352
Coon	113	27	72	33	922	34	32	7	42	69	903	77	2,331
Fox	36	3	50	3	892	71	0	0	0	48	985	0	2,088
Chipmunk	21	0	13	-	909	16	0	-	0	37	961	0	1,957

TABLE 2: Peak Hour Summer 2008 Intersection Turning Movement Design Volumes

	Southbound			Westbound			Northbound			Eastbound			
SR 28 @	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
267	343	1	269	3	675	442	1	0	3	202	834	1	2,774
Secline	39	2	17	22	1,075	36	24	1	26	42	1,126	11	2,421
Deer	3	0	24	25	1,074	22	0	0	5	33	1,126	14	2,326
Bear	45	4	72	40	1023	62	13	0	73	68	994	59	2,453
Coon	78	27	87	33	957	19	32	7	42	57	958	77	2,374
Fox	36	3	50	3	912	71	0	0	0	48	1005	0	2,128
Chipmunk	21	0	13	0	929	16	0	0	0	37	981	0	1,997

TABLE 3: Peak Hour Summer 2028 Intersection Turning Movement Volumes -- Not Constrained by North Stateline Signal

	Southbound			Westbound			Northbound			Eastbound			
SR 28 @	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
267	685	1	506	3	849	944	1	0	3	434	1078	1	4,505
Secline	50	2	25	22	1,759	47	24	1	26	51	1,643	11	3,660
Deer	10	0	46	26	1,748	28	0	0	5	44	1,640	16	3,562
Bear	54	4	83	41	1691	85	24	0	77	99	1480	62	3,699
Coon	102	27	144	34	1586	32	38	7	43	80	1424	84	3,602
Fox	50	3	81	3	1526	84	0	0	0	75	1469	0	3,290
Chipmunk	26	0	36	0	1532	21	0	0	0	54	1442	0	3,111

TABLE 4: Peak Hour Summer 2028 Intersection Turning Movement Design Volumes
Constrained by Capacity of North Stateline Pedestrian Signal

	Southbound			Westbound			Northbound			Eastbound			
SR 28 @	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
267	666	1	506	3	786	874	1	0	3	434	1049	1	4,324
Secline	50	2	25	22	1,626	47	24	1	26	51	1,595	11	3,479
Deer	10	0	46	26	1,614	28	0	0	5	44	1,592	16	3,381
Bear	54	4	83	41	1557	85	24	0	77	99	1433	62	3,518
Coon	102	27	144	34	1453	32	38	7	43	80	1377	84	3,421
Fox	50	3	81	3	1392	84	0	0	0	75	1422	0	3,109
Chipmunk	26	0	36	0	1399	21	0	0	0	54	1394	0	2,930

TABLE 5: SUMMARY OF ALTERNATIVE TRAFFIC IMPACTS

			2008				2028			
		Existing	Alt - No Project	Alt 2	Alt 3	Alt 4	Alt 1 - No Project	Alt 2	Alt 3	Alt 4
SR 28 Summer Intersection LOS (1)										
SR 267		C	C	C	C	C	F(2)	D	F(2)	C
Secline Street		F	F	F	F	F	F	F	F	F
Deer Street		D	E	E	E	E	F	F	F	F
Bear Street		F	F	B	A	B	F	F	B	F
Coon Street		B	A	B	A	B	D	F	D	F
Fox Street		F	F	F	F	F	F	F	F	F
Chipmunk Street		E	E	F	E	F	F	F	F	F
SR 28 Winter Intersection LOS (1)										
SR 267		D	D	C	D	C	F(2)	C	F(2)	C
Secline Street		F	F	F	F	F	F	F	F	E
Deer Street		C	C	D	C	D	F	F	F	F
Bear Street		F	F	B	A	B	F	F	B	F
Coon Street		A	A	B	A	B	D	F	D	F
Fox Street		F	F	E	F	E	F	F	F	F
Chipmunk Street		E	D	C	D	C	F	F	F	F
Summer Roadway LOS										
Peak Direction LOS		B	B	F	B	F	D	F	D	F
TRPA LOS Standard Exceeded?	EB	No	No	Yes	No	Yes	No	Yes	No	Yes
	WB	No	No	Yes	No	Yes	No	Yes	No	Yes
Days per Year TRPA LOS Standard Exceeded	EB	0	0	10	0	10	0	104	0	104
	WB	0	0	5	0	5	0	108	0	108
Days per Year With 1 or More Hour of LOS F	EB	0	0	10	0	10	0	104	0	104
	WB	0	0	5	0	5	0	108	0	108
Hours per Year of LOS F	EB	0	0	28	0	28	0	670	0	670
	WB	0	0	15	0	15	0	774	0	774
Maximum Hours per Day of LOS F	EB	0	0	7	0	7	0	11	0	11
	WB	0	0	6	0	6	0	11	0	11
Winter Roadway LOS										
Peak Direction LOS		B	B	F	B	E	E	F	E	F
TRPA LOS Standard Exceeded?	EB	No	No	Yes	No	No	No	Yes	No	Yes
	WB	No	No	Yes	No	No	No	Yes	No	Yes
Hours Per Peak Day LOS F	EB	0	0	3	0	0	0	3	0	3
	WB	0	0	1	0	0	0	1	0	1
Maximum Daily Traffic Volume on Residential Streets		2000	2000	2000	2000	2000	2800	5400	2800	5400

Note 1: Total Intersection LOS for signalized intersection, worst approach LOS for roundabout and Stop sign controlled.
Note 2: Unmitigated. With separate WB right-turn lane, LOS D is provided.

Accident Rates

The collision data from April 2002 to March 2005 is as follows. Total collision rate for the segment is 5.03 collisions per million vehicle miles. The total statewide average is 1.65 per million vehicle miles. Fatal plus injury collision rate for the segment is 1.61 per million vehicle miles. This is also higher than the statewide average of 0.68 per million. Information obtained from "Table B – Selective Accident Rate Calculation, dated April 18, 2006, provided by Caltran's District 3.

The accident rate for this section of SR-28 is higher than the State average due several reasons. A major reason is there is not protected left turn pockets at many of the major intersections. This causes the number one lane in each direction to become congested and rear-end type accidents occur. These types of accidents tend to be at lower speeds and less severe. This can be seen in the Fatal Accident rate for the segment being low at 0.00. The State average is 0.036. The other contributing types of accidents involve conflicts between automobiles and pedestrians. Before the 36 month period shown in the Table 6, there had been fatal pedestrian accidents. These have usually been in uncontrolled marked pedestrian crossings.

In all of the alternatives an improvement at the intersection for turning traffic and pedestrians are included. These include a left turn pocket, signalization and/or roundabouts.

TABLE 6: COLLISION DATA

					No. of Accidents / Significance										Accident Rates					
												Pers	ADT	Total	Actual			Average		
Location Description	Date Range		No. of Mos	Rate Group (RUS)	Tot	Fat	Inj	F+I	Multi Veh	Wet	Dark	Kid Inj	Main X-St	MV+ or MVM	Fat	F+I	Tot	Fat	F+I	Tot
03 PLA 028 009.200-03 PLA 028 010.299				**1.100 MI** H	103	0	33	33	86	6	16	0	17	20.46	0	1.61	5.03	0.036	0.68	1.65
0001-0001	4/1/2002	3/31/2005	36	R	**H99**		**H99**	**H99**				51								

5. ALTERNATIVES

A. VIABLE ALTERNATIVES

Environmental, traffic and right of way impacts have been studied for the three viable alternatives (2 through 4 described above) as well as for the no build alternative. The design year for long term analysis is Year 2028. The various scenarios studied are as follows:

Existing Conditions
Future No Project/No Build
Near term Alternative 2, 3, and 4
Long term Alternative 2, 3, and 4

The water quality improvements for each alternative will be the same. Those features include drainage inlets, curb and gutter, and coordination with the Watershed Improvement Project for outfall and treatment options. Aesthetic improvements will be included that enhance the scenic integrity of the commercial core. These will include entry statements at the east and west ends of the commercial core, the retirement and/or replacement of non-conforming signs, the installation of streetlights, benches, transit

facilities, planters intended to separate pedestrians from the roadway, bicycle racks, trash receptacles, and additional landscaping.

No-Build Alternative

The existing SR-28 roadway would be retained as is. Improvements would not be implemented. It lacks turn pockets at signal locations; and vehicles would block the left through lane while attempting to make left turns.

Providing safe pedestrian access across SR-28 is equally important. Currently, two signalized intersections are present at Coon Street and SR-267; each has pedestrian activated signals. Eight striped crosswalks are present at various locations along SR-28 in Kings Beach. However, crosswalk markings are visible only between June and November (striping is obliterated during the winter by snow removal equipment). Even where available and visible, these crossings offer the pedestrian only limited protection when trying to cross the roadway.

Proposed Engineering Features

Features of each viable build alternative are as follow:

Alternative 2 – Two Lanes with On-Street Parking and 2 Roundabouts (Exhibit B)

"Alternative 2 – Two Lanes with On-Street Parking and 2 Roundabouts" was developed after the 2001 Project Study Report (PSR). To improve the traffic congestion and provide smooth traffic flow, single lane roundabouts are proposed at Bear Street and Coon Street. However, traffic was reduced to one 3.6 m (12 ft) lane in each direction with a continuous 3.6 m (12 ft) two-way-left-turn lane. Parallel parking is provided on both sides of the roadway as well as designated bike lanes. Pedestrian sidewalks with amenities were widened to 2.9 m (9.5 ft) on each side. The signalized intersection with SR-267 will be maintained with four lanes and turn pockets. A transition from four lanes to two lanes occurs between SR-267 and Secline Street. A two-way-left-turn lane is provided but parallel parking is prohibited within this section of SR-28. Sidewalks will be 1.7 m (5.5 ft) wide on each side of SR-28. The standard two lane section with two-way-left-turn lane begins east of Secline Street. Bike lanes, 2.9 m (9.5 ft) wide sidewalks, and parallel parking are provided eastward to Chipmunk Street. Parallel parking is eliminated at driveways, bus turn outs, and within the sight lines at intersections. In Alternative 2, on street parking is prohibited during the peak summer season from Independence Day to Labor Day. This will be accomplished by signing, temporary barricades, and enforcement.

Alternative 3 – Four Lanes with On-Street Parking (Exhibit C)

"Alternative 3 – Four Lanes with On-Street Parking" was developed from Option B in the PSR. Standard signalized intersections will remain at SR-267 and Coon Street. One new traffic signal will be installed at Bear Street. Improvements are included in this option for pedestrian and bicycle access, bus stops, and parking. However, the narrow right of way width of 24.4 m (80 ft) restricts the travel lanes to 3.3 m (11 ft) and the sidewalks to 1.7 m (5.5 ft) on each side. Turn pockets are provided at intersections based upon the traffic volumes but at the expense of parallel parking spaces. Right of way impacts are not a factor in Alternative 3.

Alternative 4 – Three Lanes with 2 Roundabouts and Without On-Street Parking (Exhibit D)

"Alternative 4 – Three Lanes with 2 Roundabouts and Without On-Street Parking" was developed from Alternative 2 at the recommendation the Tahoe Regional Planning Agency (TRPA). The significant difference from Alternative 2 is that parallel parking is not provided along the entire length of the project. Off-street parking will be provided for with side street parking and newly constructed parking lots to mitigate this loss. The width saved from parking spaces is incorporated into the sidewalks making them 5.3 m (17.4 ft) wide on each side. Bus stop turnouts are provided and at these locations, the sidewalk narrows to 2.9 m (9.5 ft).

Nonstandard Mandatory and Advisory Design Features:

Alternative 3 is the only alternative that has a nonstandard design feature, 3.3m (11 ft) lanes. A Mandatory Design Exception has been created for this alternative and is included as Exhibit R. All other alternatives (Alt. 2 & 4) do not have any nonstandard design features.

The roundabouts included in Alternatives 2 and 4 are a nonstandard design feature. A Conceptual Approval Report (CAR) has been approved for the two roundabout locations, and is attached as Exhibit M.

Park and Ride Facilities

Each alternative was assessed for consistency with the parking-related objectives and policies of the Kings Beach Community Plan, as adopted by TRPA and Placer County in 1996. Alternatives 2 through 5 impact parking by reducing the number of parking spots available. To mitigate for the loss of parking along SR-28, each of the alternatives (Alternative 2 through 4) would have provisions to provide and/or construct community parking lots within a reasonable distance of 1 block from the project corridor.
Under all alternatives (except Alternative 1), Brook Avenue from Bear Street to Coon Street would be converted to one-way eastbound, providing the opportunity for additional on-street parking See Exhibit P.

Utility and Other Owner Involvement

Utilities within the project area are primarily underground facilities along the north side of State Route 28. The existing right of way corridor will remain unchanged with the exception of the intersections improvements.

The minor utility impacts will be similar for all project alternatives except the no build alternative (ALT 1). The project will not change the profile or alignment of SR 28, however it will add sidewalks and bike lanes which will necessitate adjusting hydrants, valves, and pull boxes to grade, as well relocating or recessing utilities that would interfere with pedestrian routes.

The Utility Information Sheet and a map of the utilities located within the project limits can be found in Exhibit H. The following is a list of the existing utilities within the study area:

- Pacific Gas & Electric Company (PG&E) — Electricity
- Sierra Pacific Power Company — Electricity
- Southwest Gas — Gas
- AT&T — Telephone
- North Tahoe Public Utility District — Sewer, Water
- Tahoe Truckee Sierra Disposal — Solid Waste

Potholing of existing underground facilities will be performed during the PS&E phase to insure as-built locations and incorporated into the design.

Highway Planting

A total of $150,000 has been included in the project cost estimate for highway planting. All disturbed areas will be re-vegetated with varying levels of landscaping.

Erosion Control

A total of $80,000 has been included in the project cost estimate for the Type D erosion control. Erosion control will be included in the PS&E.

Noise Barriers

An Environmental Noise Analysis was performed for the four alternatives being considered, including the No-Build alternative, to identify the change in traffic level noise that would occur for each of the improvement alternatives, and to consider noise levels due to construction activities associated with the project improvements. For the purpose of this analysis, the existing and cumulative (future) noise environments have been evaluated. Predicted noise levels were compared to the applicable Caltrans/FHWA and Regional (TRPA) noise level criteria. The analysis was performed in accordance with the guidelines of the Caltrans Traffic Noise Analysis Protocol.

Analysis concluded that there will be virtually no difference in the predicted traffic noise levels among the project build alternatives. This situation is anticipated due to the similarities between alternatives as well as the fact that predicted traffic volumes do not vary appreciable between alternatives.

The predicted future plus project traffic noise levels are not expected to exceed the Caltrans Noise Abatement Criteria in the project area. It should be noted that the existing condition along SR-28 in Kings Beach exceeds the TRPA design standard of 55 dBA, CNEL. Furthermore the noise level increase due to the project is predicted to be below the Placer County thresholds for findings of significant noise impacts. As a result, the consideration of noise abatement measures for this project is not warranted.

Non-Motorized and Pedestrian Facilities

It is proposed to provide Class II bike lanes throughout the project on both sides of SR-28 as described for each alternative. Sidewalks with grades and curb ramps at intersection that satisfy ADA requirements are included in the project along both sides of SR-28.

Cost Estimate

For a complete estimate of construction costs for each alternative, see Exhibit F. A summary of the costs for each alternative is as follows:

Alternative 2

Roadway Construction	$ 29,200,000
Right of Way & Utility Relocation	$ 740,000
Capital Cost Subtotal	$ 29,940,000
Preliminary Engineering, 12%	$ 3,500,000
Construction Engineering, 15%	$ 4,380,000
Support Cost Subtotal	$ 7,880,000
Project Total Cost	**$ 37,820,000**

Alternative 3

Roadway Construction	$ 30,620,000
Right of Way & Utility Relocation	$ 730,000
Capital Cost Subtotal	$ 31,350,000
Preliminary Engineering, 12%	$ 3,670,000
Construction Engineering, 15%	$ 4,590,000
Support Cost Subtotal	$ 8,270,000
Project Total Cost	**$39,620,000**

Alternative 4

Roadway Construction	$ 29,150,000
Right of Way & Utility Relocation	$ 740,000
Capital Cost Subtotal	$ 29,890,000
Preliminary Engineering, 12%	$ 3,500,000
Construction Engineering, 15%	$ 4,370,000
Support Cost Subtotal	$ 7,870,000
Project Total Cost	**$ 37,770,000**

Right of Way Data Sheets

See Exhibit G for the Right of Way Data Sheets and exhibit maps.

B. REJECTED ALTERNATIVES

Improvements that were considered and rejected by the PDT include:

- Alternatives 2, 4 & 5 with a third roundabout located at the intersection of SR-28 and SR-267. The roadway from the west edge of the Safeway parking lot to just east of the SR-28/Secline Street intersection would be shifted north to accommodate the roundabout. However, excessive roadway and driveway modifications, excessive right of way takes, and geometric difficulties made these alternatives not feasible.

- Alternative 5 – Two Westbound Lanes, One Eastbound Lane, TWLTL, Westbound On-street Parking and 2 Roundabouts (Exhibit E). The PDT investigated the impacts the hybrid roundabout (2-westbound lanes, 1-eastbound lane) would have at the Bear Street and Coon Street intersections. The Bear Street hybrid roundabout would result in the loss of 14 parking stalls in the State Park parking lot and a complete circulation re-configuration. The Coon Street hybrid roundabout would result in the unacceptable level of take of land from the south east and south west corner parcels. The PDT decided that those impacts were not consistent with the need and purpose of the project.

6. CONSIDERATIONS REQUIRING DISCUSSION

Tourists come to Kings Beach to enjoy the area's aesthetic and recreational resources and facilities. At times, the local population swells by as much as 550 percent. Convenient pedestrian access is a critical component of commercial and recreational activities that occurs in Kings Beach. Currently, sidewalks are present in only some locations. Where sidewalks are not present, pedestrians must walk along the edge of the street or along undeveloped portions of the right of way. Improved pedestrian access is needed. This includes access along the commercial core, between parking and the commercial core, and between the commercial core and adjacent recreation areas.

Bicycle use is increasing in Kings Beach and in the Tahoe area generally. It is reasonable to assume that levels of bicycle use will continue to increase with time. Delineated bicycle facilities are not present within the Kings Beach commercial core. Bicyclists are forced to ride in the roadway, competing with automobiles and pedestrians. There is a need to improve bicyclist access along the KBCC. Meeting this need will require that sufficient space be identified and set aside for use by pedestrians and bicyclists. This will include multi-use sidewalks (for bicyclists to navigate the roundabouts), curbs to protect pedestrians, bike paths, and bike lanes.

A. HAZARDOUS WASTE

Concurrent with the Preliminary Environmental Analysis Report (PEAR) a limited Initial Site Assessment (ISA) was conducted. The purpose of the ISA was to document any evidence of current and/or historic groundwater or soil contamination due to potentially hazardous waste or materials present in the proposed project area. The assessment included a review of historic aerial photographs; contact with federal, state and local agencies; and site visits. The ISA is attached to this Project Report as Exhibit S. This report identified hazardous waste concerns at multiple locations within the project area and recommended that additional studies should be conducted in locations where ground disturbance is anticipated. A Phase II Environmental Site Assessment was performed in the Fall of 2006 and a report submitted to Caltrans on October 31, 2006.

In general, soils contained petroleum hydrocarbons to depths of 2.0 to 3.0 feet in the right-of-way adjacent to all parcels investigated with the exceptions of the former Shell/Chevron station (APN 090-075-017). At the former Shell/Chevron station soil contained petroleum hydrocarbons at depths below 8.0 feet. The right-of-way adjacent to all other parcels investigated with the exception of Dave's Ski Shop (APN 090-071-029) contained soil impacted with petroleum hydrocarbons to depths of 5.0 feet.

Selected soil samples were analyzed for total lead. Results indicate that the soils are considered non-hazardous and can be transported and disposed of as petroleum-containing soils at a Class II landfill licensed to accept these soils, such as the Norcal Waste System's Ostram Landfill in Wheatland or the Allied Waste Inc's Forward Landfill in Manteca, California. Since the TPH concentrations in the soils

are greater than 600 mg/Kg, these soils cannot be disposed of at the Lockwood Landfill in Mustang, Nevada. Another option for soil disposal is by incineration at the Nevada Thermal, Inc. facility in Mustang, Nevada. Costs for disposal at these facilities are generally $15/ton at Ostram Road Landfill, $21/ton at the Forward Landfill, and $50/ton at Nevada Thermal, Inc. A line item entitled "Hazardous Waste Contingency" has been included in the project's cost estimate. This contingency varies from $567,000 to $591,000 depending on the project alternative.

B. VALUE ANALYSIS

A formal value analysis study was performed on December 11th and 12th, 2006 at the Placer County Offices in Auburn, California. Attendees included representatives from Placer County, Caltrans and Dokken Engineering. The VA team developed 17 alternatives for improvement of the project affecting one of four areas:

- Construction phasing
- Drainage modifications
- Business/commercial impacts during construction
- Public mobility impacts during construction

C. RESOURCE CONSERVATION

Energy conserving features include street improvements such as signalization that reduce the congestion and move traffic more efficiently. Energy conservation measures will be considered for incorporation into the electrical portions of the project, such as signals and lighting. It is anticipated that all signal faces and pedestrian heads will be of the light-emitting-diode type, and street lighting will be high pressure sodium light bulbs.

D. RIGHT OF WAY ISSUES

New right of way is minimal for this project. Alternatives 2 through 4 would be constructed within existing highway right of way, with small partial takes occurring at the intersections for signals and roundabouts. Right of way needs on lands that have hazardous waste will be by highway easement not in fee. All right of way takes are sliver takes ranging from 8m^2 (86 ft^2) to 92 m^2 (990 ft^2). Permanent right of way takes are at a maximum 324 m^2 (0.08 acres), with temporary construction easements totaling 14,124 m^2 (3.49 acres). Five businesses will need sign relocations, and one business will need a modified awning. 89 commercial, 12 residential, and 2 County owned properties will be affected. All permanent takes are from commercial properties, none of which change the value of the property. Placer County will perform the acquisition of all right of way needs. Alternative 3 differs from the other three build alternatives due to a decreased right of way take affecting one property.

E. ENVIRONMENTAL ISSUES

Draft Environmental Documents has been prepared in accordance with Caltrans' environmental procedures, as well as State, Federal and TRPA environmental regulations. See Exhibit Q for the EIR/EIS title sheet, the final EIR/EIS will accompany the Project Report. The following is a summary of the initial findings.

Significant impacts remaining after mitigation that were identified by the final EIR/EIS are limited to traffic impacts. All other environmental impacts will be mitigated below a level of significance. The following is a summary of mitigation measures proposed for the project.

- Air Quality: Construction activities will follow the Placer County Best Available Mitigation Measures and the Tahoe Regional Planning Agency Best Management Practices.
- Dust Control: Caltrans Standard Specification 7-1.01F will be followed.
- Water Quality: Best Management Practices from Caltrans, TRPA, and NDOT will be implemented.
- Traffic Calming: Mitigation measures include the alternative for roundabouts at the proposed intersection improvements and reconfiguration of traffic flow on some of the local county roads.
- Traffic: A Traffic Management Plan (TMP) will be prepared to identify and facilitate traffic patterns from the project during construction. Other alternatives for traffic mitigation include street closures and turn lanes.
- Parking: Off-street parking lots will be constructed at a 1:1 replacement ratio.
- Relocation impacts: property owners affected will be fairly compensated for impacts following the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1979.
- Noise: Caltrans Standard Specification Section 7-1.01I and TRPA Code of Ordinances will be followed for construction activities.
- Soils: Restoration of "soft" coverage area will be conducted. Revegetation will be approved by Caltrans Landscape Architecture branch and TRPA.
- Biology: Mitigation measures for special status plants and animals in the project area will be implemented as well as for Waters of the US.
- 4(f): Revegetation and BMP's will be implemented in the State Recreation Area.

F. AIR QUALITY CONFORMITY

The project is located with in the Placer County portion of the Lake Tahoe Air Basin, and is managed by the Placer County Air Pollution Control Board. The Tahoe Regional planning Agency has developed its own set of air quality standards and ordinances and has authority for overseeing and managing overall air quality in the Lake Tahoe Air Basin. In order to minimize the projects air quality impacts, Chapter 93, Traffic and Air Quality Mitigation Program, TRPA Code of Ordinances analyses were performed and implementation of Mitigation Measures outlined in the Environmental Document. Overall the project, with mitigation measures is found to be in compliance with TRPA code.

G. TITLE VI CONSIDERATIONS

Raised sidewalks with grades and curb ramps at intersections that satisfy ADA requirements are included in the project along both sides of SR-28.

H. PEDESTRIAN MOBILITY

The Community Plan calls for redevelopment of the SR-28 corridor, providing more of a "downtown" feel and atmosphere. Community input has encouraged that redevelopment plans be as "pedestrian friendly" as possible. These comments appear to derive from several factors including the following:

- While tourism is an important element to local commerce, the roadway serves as an impediment to pedestrian traffic.
- Eight striped crosswalks are present along SR-28 in the project area. Crosswalk markings are visible only between June and November; the striping is obscured during winter months. Currently, two signalized intersections are present; each has pedestrian activated switching. They represent preferred locations at which to cross the roadway.
- In many areas, pedestrians walk on the roadway shoulder to get around parked cars.

- Amenities that would add to the pedestrian experience (developed sidewalks, landscaping, street lighting, seating, etc.) are generally not present.
- Pedestrian plan will meet ADA requirements.

All viable alternatives improve pedestrian and bicyclist access along and across the SR-28 roadway within the Kings Beach area by providing sidewalks, curb ramps and crosswalks at intersections.

I. BICYCLE MOBILITY

Bicycle use along SR-28 has and will continue to increase. In the absence of bike lanes, bicyclists share the travel lane with automobiles. Amenities that would diminish interference between bicyclists and automobiles (bike lanes, separated bike and pedestrian travel ways, etc.) are generally not present.

J. WATER QUALITY

Primary responsibility for the protection of water quality in the project area rests with the California Regional Water Quality Control Board, Lahontan Region and the TRPA. The primary controlling documents include Lahontan's *"Water Quality Standards and Control Measures for the Lake Tahoe Basin (Basin Plan)"* and TRPA's *"Goals and Policies"* and *"Environmental Thresholds"*. These documents outline water quality standards for surface and ground waters, the beneficial uses of waters and objectives that must be maintained or attained to protect those uses, and other environmental standards that must be achieved and maintained in the Basin. Currently, portions of the Kings Beach project area are not in attainment of objectives set by these Agencies.

The water quality goals and objectives set by Lahontan and TRPA are implemented through National Pollution Discharge Elimination System (NPDES) permits. The Kings Beach project lies within the jurisdiction of the Placer County permit requirements. Additionally, properties lying within the Caltrans right of way are governed by the State Water Resources Control Board and must meet the requirements of NPDES permit No. 99-06-DWQ. Water quality objectives and goals are enforceable through effluent limitations and these must be met to the Maximum Extent Practicable (MEP) for the MS4 requirements and Best Available Technology Economically Achievable/Best Conventional Technology (BAT/BCT) for the Construction requirements.

Most development in the community of Kings Beach occurred during the 1920s and 1930s, and during the late 1940s and 1950s. Drainage issues were not addressed from an area-wide perspective and water quality treatment was seldom integrated into local systems. At this time, culverts underneath SR-28 do not meet applicable Caltrans and Placer County design standards. They are too small to convey the required design flows. Also, very few storm water treatment facilities are present downstream (south) of SR-28. Facilities are necessary to accommodate and treat storm water generated in the project corridor, and storm water conveyed into the area from up-gradient.

Portions of the existing drainage system, constructed in the 1960s, are undersized and provide no water quality treatment. Recent upgrades north of SR-28 have increased drainage network capacity and improved sediment control. However, the restricted capacity of culverts underneath the roadway limits the extent to which up-gradient waters can be conveyed through the right of way. Also, proximity to Lake Tahoe limits options available for the treatment of storm water runoff. Because of these limitations, existing area-wide storm water treatment facilities do not meet standards set by local regulatory agencies.

Meeting this need will involve the consideration of four major factors. First, limited space is available to accommodate large treatment facilities that could address area-wide storm water flows. As a result,

emphasis needs to be placed on source control and reducing the quantity of runoff reaching stormwater conveyances. Second, storm water collection facilities will be needed along SR-28, along side streets, and in parking areas. Third, conveyance facilities will need to be sized to accommodate agreed upon design flows. This includes natural streams, such as Griff Creek, and storm water conveyances. Of particular concern will be conveyances that extend under SR-28. Fourth, treatment will be required for the collected and conveyed storm water. Storm water treatment facilities should be sized to the maximum extent practicable to accommodate design storm treatment volumes as specified in the respective Placer County and Caltrans NPDES permits.

The 1960s saw the construction of some drainage improvements in the community (in conjunction with the widening of SR-28 and construction of the recreation area), but by today's standards, those improvements are undersized and do not include appropriate water quality treatment facilities. Over the last 20 years, several erosion control projects have been constructed, including the following:

- Griff Creek Erosion Control and Stream Restoration Project (1984): Construction of a sediment basin and rock-lined channel near SR-28 crossing.
- Fox Street Erosion Control Project (1992): Improvements constructed between Salmon Avenue and Chipmunk Street down to Brockway Vista Avenue.
- Deer Street Erosion Control Project (1993).
- Griff Creek Erosion Control Project (1994): Improvements constructed between Speckled Avenue and Wolf Street to Secline Street and SR-28.
- Kings Beach Erosion Control Project (1996): Improvements constructed between Bear Street and Chipmunk Street, and between Speckled Avenue and SR-28.

All of the listed improvement projects are located upstream (north) of SR-28. They were designed and constructed to meet current standards. At the time, however, culverts underneath SR-28 do not meet applicable standards. They are too small to convey the required design flows. There have been occasions when storm water sheet flows crossed SR-28, and there have been occasions when localized flooding occurred below SR-28. As a result, the capacity of upstream facilities need to be enlarged, thereby allowing for the collection and conveyance of both upstream flows and storm water flows generated by the roadway itself. Also, very few storm water treatment facilities are present downstream (south) of SR-28. Facilities need to be designed and constructed that can accommodate storm water generated in this area, and storm water conveyed into the area from upstream. The sizing and replacement of these culverts under SR-28 are addressed by the Kings Beach Watershed Improvement Project. This project does not propose to change or modify the culverts.

Lake Tahoe Basin regulatory agencies place great emphasis on the maintenance of storm drain facilities once they have been constructed. This reflects their heightened interest in protecting the quality of Lake Tahoe. Maintaining drainage facilities in a manner consistent with agency expectations has been an on-going problem in Kings Beach, and throughout the Lake Tahoe Basin in general. As the agencies point out, infrequent maintenance shortens the life span of improvement and reduces their capacity and effectiveness.

The viable alternatives will improve the water quality within the SR-28 corridor by means of curb & gutter and other "Best Management Practices" (BMP's). The design of these facilities will address the water quality issues originating from within the SR-28 corridor. Key elements within the corridor will be designed to operate with area wide BMP's to insure that the area as a whole improves its water quality.

K. SCENIC AND AESTHETIC CHARACTER

Historically, Kings Beach has been one of the primary commercial and recreational centers in the Tahoe Basin. However, because most of the business infrastructure (motels, businesses, rentals) that was developed in the 1950s remains unchanged and continues to decline, the area has suffered with respect to scenic quality and aesthetics. The commercial core area is located within Scenic Roadway Unit 20. This Unit has been defined by the TRPA as being below the Scenic threshold value, and therefore Out-Of-Attainment with the Basin's Scenic Threshold. For this reason, this area has been targeted for scenic restoration under the Environmental Improvement Program.

Aesthetic improvements will be included that enhance the scenic integrity of the commercial core. These will include entry statements at the east and west ends of the commercial core, the retirement and/or replacement of non-conforming signs, the installation of streetlights, benches, transit facilities, planters intended to separate pedestrians from the roadway, bicycle racks, trash receptacles, and additional landscaping. The goal of these activities would be to meet scenic quality ratings within the project area as measured by TRPA.

Each individual alternative contains design elements, sidewalks, planters, roundabouts, landscaping, lighting and street furniture that will improve the scenic and aesthetic character of the Kings beach Commercial Core area.

L. TAHOE REGIONAL PLANNING AGENCY (TRPA)

By meeting the project's needs and the performance objectives, some of the projects listed in the CIP and EIP can be fully or partially implemented. By doing so, the project will make a substantial contribution toward achieving planning goals at the community and regional level within the following areas listed in Tables 7 and 8.

TABLE 7: CAPITAL IMPROVEMENT PROJECTS

CIP Number	Project Category	Project Title / Description
Scenic		SR 28 Improvements
Scenic		Sign Program
Scenic		Scenic Quality Improvement Program (SQIP)
Traffic / Air Quality	Parking Program	Community Parking Lots
Traffic / Air Quality	Sidewalk Program	Sidewalks / amenities along SR 28
Traffic / Air Quality	Highway Improvement	Coon Street Intersection Improvement
Traffic / Air Quality	Highway Improvement	Bear Street Intersection Improvement
Traffic / Air Quality	Sidewalk Program	Sidewalks along SR 28
Traffic / Air Quality	Recreation System	SR 28 Bike Lanes
SEZ Restoration		Griff Creek
Water Quality	BMP Implementation	SR 28 Shoulders
Water Quality	BMP Implementation	Parking Lots
Water Quality	BMP Implementation	Back street Areas
Water Quality	Area-Wide Drainage	Implements Area-Wide Systems
Water Quality	Treatment Facilities	**Conduct Study**
Recreation		Recreation Trail System

TABLE 8: ENVIRONMENTAL IMPROVEMENT PROGRAM

EIP Number	Project Category	Project Title / Description
15	Water Quality	Kings Beach Residential Area
93	Scenic	Road Unit 20 Restoration
410	Fisheries	Griff Creek Stream Habitat, Culvert Improvements
649 *	Soils / SEZ	Restore 40 Acres of SEZ – Placer County
733	Water Quality	Kings Beach Industrial Area
762 *	Air Quality / Traffic	Class II Bike Path, Dollar Hill to North Stateline
787	Air Quality / Traffic	Kings Beach Roadwork – Curb and Gutter
816 **	Air Quality / Traffic	Placer County Transit Improvements
10060	Water Quality	Kings Beach Commercial Area

* The area of implementation for this EIP project extends through, but is not limited to the Kings Beach Commercial Core Area.

** The area of implementation for this EIP project is countywide. While some improvements associated with this EIP project may be located in the Kings Beach Commercial Core Area, they need not be.

M. PARKING

The existing commercial parking supply in Kings Beach is estimated to consist of 1,135 legal spaces. The estimate is based on assumptions regarding the specific width of a parking space, and the type and size of vehicles normally accommodated by those spaces.

Currently, roadside parking takes several forms, including diagonal, perpendicular, and parallel parking. The change in parking availability due to various potential project activities (roadway, drainage, and pedestrian access improvements) would vary depending on the project alternative chosen. Factors most likely to affect parking include the number of signalized intersections or roundabouts, length and location of bus stop turnouts, and the width of roadside amenities (sidewalks and landscaping). Under the worst case scenario, Alternative 4, all parking spaces would be eliminated from SR-28 within the commercial area. See Exhibit P and Table 9.

TABLE 9: PARKING CAPACITY IMPACTS

		Alt. 1	Alt. 2	Alt. 3	Alt. 4
Lost Parking	Private Commercial Spaces	0	-78	-78	-78
	Hwy 28 On-Street	0	-124[1]	-16	-124
	Total Lost	**0**	**-202**	**-94**	**-202**
Mitigated Parking	On Street – Adjacent Local Roads	0	+170	+170	+170
	Lots – Adjacent Local Roads	0	+569	+569	+569
	Total Available for Mitigation	**0**	**+739**	**+739**	**+739**

[1] Parking Lost only during the Summer Season

N. BUSES

The project will included the design of transit facilities for local and regional bus service through out the project area. This will include bus pullouts, bus shelters, and signage for the bus stops along SR-28 through the Kings Beach Commercial Core.

O. TRAFFIC IMPACTS

The traffic impacts for each alternative, including the no-build Alt. 1 are shown in Table 10. The Summer Intersection LOS is used as it represents the worst case time frame.

TABLE 10: SUMMARY OF ALTERNATIVE TRAFFIC IMPACTS (SUMMER ONLY)

			2008				2028			
		Existing	Alt 1 - No Project	Alt 2	Alt 3	Alt 4	Alt 1 - No Project	Alt 2	Alt 3	Alt 4
SR 28 Summer Intersection LOS (1)										
SR 267		C	C	C	C	C	F(2)	D	F(2)	C
Secline Street		F	F	F	F	F	F	F	F	F
Deer Street		D	E	E	E	E	F	F	F	F
Bear Street		F	F	B	A	B	F	F	B	F
Coon Street		B	A	B	A	B	D	F	D	F
Fox Street		F	F	F	F	F	F	F	F	F
Chipmunk Street		E	E	F	E	F	F	F	F	F
Summer Roadway LOS										
Peak Direction LOS		B	B	F	B	F	D	F	D	F
TRPA LOS Standard Exceeded?	EB	No	No	Yes	No	Yes	No	Yes	No	Yes
	WB	No	No	Yes	No	Yes	No	Yes	No	Yes
Days per Year TRPA LOS Standard Exceeded	EB	0	0	10	0	10	0	104	0	104
	WB	0	0	5	0	5	0	108	0	108
Days per Year With 1 or More Hour of LOS F	EB	0	0	10	0	10	0	104	0	104
	WB	0	0	5	0	5	0	108	0	108
Hours per Year of LOS F	EB	0	0	28	0	28	0	671	0	671
	WB	0	0	15	0	15	0	774	0	774
Maximum Hours per Day of LOS F	EB	0	0	7	0	7	0	11	0	11
	WB	0	0	6	0	6	0	11	0	11
Maximum Daily Traffic Volume on Residential Streets		2000	2000	2000	2000	2000	2800	4000	2800	4000

Note 1: Total intersection LOS for signalized intersection, worst approach LOS for roundabout and Stop sign controlled.
Note 2: Unmitigated. With separate WB right-turn lane, LOS D is provided.

P. STAGED CONSTRUCTION

Staged construction for all the viable alternatives will be similar. Stage 1 would be the construction of all improvements outside of the current traveled way. This would include the curb, gutter & sidewalk and driveway improvements/conforms. Stage 2 would be to construct the remaining interior portion of the project with traffic control and shifting of traveled lanes to facilitate the construction activities. See Exhibit L.

7. OTHER CONSIDERATIONS

Public Hearing Process

Public hearings have been held on the following dates. All public and private landowners within a 4000' radius were notified through mailed announcements. Public notices were posted in the local paper and flyers were handed out to all business managers within the project area. All meetings observed attendance by both public and private landowners, and project scoping comments were recorded and considered in the five alternatives. An additional public hearing will be held to finalize the preferred alternative. See Table 11.

TABLE 11: PUBLIC MEETINGS/INFORMATIONAL SESSIONS

Date	Type	Description	Water Quality Specific
1/22/2002		Placer County TRPA Partnering	
2/19/2002	CCIP	Environmental Document Scoping	
2/27/2002	CCIP	Public Meeting (No Mactec Attendance)	
4/9/2002		Upper Watershed Planning Grant	Yes
4/24/2002		Technical Committee	
5/21/2002	CCIP	Public Meeting (No Mactec Attendance)	
6/4/2002	CCIP	Technical Committee	
6/28/2002	CCIP	Water Quality - Pine Cover Plaza	Yes
7/17/2002	CCIP	Technical Committee	
7/25/2002	CCIP	Technical Committee	
10/2/2002	CCIP	EIR Scoping	
12/2/2002		Water Quality Planning Grant - Griff Creek Permitting	Yes
12/12/2002	CCIP	Team Meeting	
1/9/2003	CCIP	Team Meeting	
1/27/2003		Water Quality Planning Grant	Yes
2/13/2003	CCIP	Team Meeting	
3/13/2003	CCIP	Team Meeting	
4/10/2003	CCIP	Team Meeting	
5/8/2003	CCIP	Team Meeting	
6/12/2003	CCIP	Team Meeting	
6/25/2003		Streetscape Improvement Plan	
7/10/2003	CCIP	Team Meeting	
9/25/2003	CCIP	Team Meeting	
10/16/2003	CCIP	Team Meeting	
11/13/2003	CCIP	Team Meeting	
12/11/2003	CCIP	Team Meeting	
12/11/2003	CCIP	TRPA Requested Meeting	
1/8/2004	CCIP	Team Meeting	
1/22/2004		Team Meeting - Water Quality Planning Study	Yes
1/28/2004		Public Meeting (No Mactec Attendance)	
2/19/2004	CCIP	Team Meeting	
3/11/2004	CCIP	Team Meeting - Improvement Project	
3/23/2004		Team Meeting - Water Quality Planning Study	Yes
CCIP - Commercial Core Improvement Project			

Permits

Permits necessary for this project will likely include, dependent upon the selected alternative, the following:

Army Corp of Engineers	Section 404 Impacts to US Waters
CRWQCB, Lahontan Region	Section 402 Notice of Intent
Caltrans, District 3	Encroachment Permit
TRPA	Project Approval

A 1602 (CDFG) or 401 (RWQCB) are not anticipated if all activities in the stream channel are excluded from project activities.

NPDES

The National Pollutant Discharge Elimination System (NPDES) requires BMP's to be utilized to eliminate point sources of water pollution. The project site will combine BMP's with the existing roadway drainage network to ensure that construction activities do not generate point sources of water pollution.

Cooperative Agreements

A Cooperative Agreement for PS&E, right of way, and construction phases is being developed and will be ready for execution before the Final Project Report is signed.

Caltrans' Transition Plan for Metric to English units

Per the "Caltrans Metric to U.S. Customary Units Transition Plan", Section XII – C, the PS&E phase of this project will be in U.S. Customary Units (English).

Transportation Management Plan

A Transportation Management Plan (TMP) has been developed for this project and can be found in Exhibit J. The construction schedule of this project will be coordinated with the construction schedules of other Kings Beach/SR-28 corridor projects. Significant traffic delays are not anticipated due to construction staging. The TMP outlines a staging plan for which the majority of construction can be accomplished using conventional traffic controls. Planned detours will be used as necessary to minimize traffic delays and inconvenience cause by construction activities. A public information campaign will be launched to alert area residents, commuters, and tourists of the impending construction.

8. FUNDING AND PROGRAMMING

Table 12
PROPOSED FUNDING ALLOCATIONS – ALTERNATIVES 2-4
(in $1,000's, escalated factor used for R/W is 10%, Construction Capital, and Support is 3% per year)

Funding Allocation Year	Funding Source	PA&ED	Right of Way Support[i]	Right of Way Capital	PS&E	Construction Support	Construction Capital	Total
Prior to 05/06	USFS Grants	$345						$345
	STIP	$2,017	$174	$639	$783			$3,613
	TEA				$146			$146
	TRPA Fees				$215			$215
	SNPLMA[ii]				$3,450	$500		$3,950
	NLTRA[iii]					$4,094	$359	$4,453
	PCRA[iv]						$7,300	$7,300
09/10	STIP						$22,966	$22,966
Total		**$2,362**	**$174**	**$639**	**$4,594**	**$4,594**	**$30,625**	**$42,988**

[i] both right of way capital and construction capital costs are base on the most expensive alternative
[ii] SNPLMA – Southern Nevada Public Lands Management Act
[iii] NLTRA – North Lake Tahoe Resort Association
[iv]PCRA – Placer County Redevelopment Agency

Table 13
PROGRAMMED FUNDS – ALTERNATIVES 2-4
(in $1,000's, escalated factor used for R/W is 10%, Construction Capital, and Support is 3% per year)

	05/06	06/07	07/08	08/09	09/10	Total
PA & ED	$2,362					**$2,362**
R/W Support	$174					**$174**
R/W Capital	$639					**$639**
PS&E (12%)	$4,595					**$4,595**
Construction Support (15%)	$4,594					**$4,594**
Construction Capital	$359	$5,741	$5,741	$9,741	$9,041	**$30,624**
Total	**$13,423**	**$6,741**	**$6,741**	**$9,741**	**$9,041**	**$42,988**

SCHEDULE

PA&ED	June 2007
Begin PS&E	July 2007
65% PS&E	January 2008
95% PS&E	April 2008
Quality Control Review of PS&E	June 2008
PS&E	September 2008
Right of Way Certification	October 2008
Ready To List	November 2008
Advertise for Bid	December 2008
Award Contract	January 2009
Begin Construction	April 2009

9. REVIEWS

Federal Highway Administration (FHWA)	Cesar Perez
Caltrans Headquarters Project Development Coordinator	John Steele
Caltrans Headquarters Design Reviewer	John Steele
Caltrans Headquarters Traffic Liaison (Roundabout)	Wayne Henley
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10. PROJECT PERSONNEL

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11. EXHIBITS

A. Vicinity/Location Map
B. Alternative 2
C. Alternative 3
D. Alternative 4
E. Alternative 5
F. Project Cost Estimates
G. Right of Way Data Sheets
H. Utilities
I. Traffic Report
J. Transportation Management Plan
K. Storm Water Data Report
L. Staged Construction Concept Exhibit
M. Roundabout Conceptual Approval Report
N. Landscape Concept Plan
O. ADA Exhibits
P. Proposed Parking
Q. Environmental Document Title Sheet
R. Mandatory Design Exception
S. Phase II Site Investigation